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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Rosenberg, Louis B.  
Ser. No. : 09/823,943  
Fil. Date : March 30, 2001  
For : Haptic Remote Control for Toys  
Examiner : Cegielnik, Urszula M.  
Art Unit : 3712

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

S I R:

Applicant has submitted references listed on the enclosed Information Disclosure Statement in electronic form on the enclosed compact disc. Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached Form-PTO SB/08A. If the Examiner desires hard copies of some or all of these references, Applicant will provide these expeditiously upon Examiner's request.

This Information Disclosure Statement is being submitted after the mailing of a first Office Action in this application. Accordingly, enclosed please find a check in the amount of \$180 for the fees required by this action. The Commissioner is also hereby authorized to charge any additional fees under 37 C.F.R. 1.16 or 1.17 which may be required during the entire pendency of this application, or to credit any overpayment, to Deposit Account No. 16-1435. A duplicate of this sheet is attached for that purpose.

It is respectfully requested that the references listed on the attached form be expressly considered by the Examiner and be made of record in the application and appear among the "References Cited" on any patent to issue therefrom. For the documents listed in "Other Documents," Applicant has listed the dates which are shown on the documents. Applicant makes no representation as to the publication dates, if any, of the documents. Further, and although the form supplied by the PTO contains the header of "Other Prior Art," Applicant makes no representation or statement that the references listed are or are not prior art.

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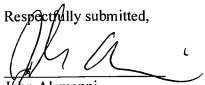
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Date: 6/3/03

Respectfully submitted,

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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of

5

Complete if Known

Application Number

09/823,943

Filing Date

March 30, 2001

First Named Inventor

Rosenberg, Louis B.

Art Unit

3712

Examiner Name

Cegielnik, Urszula M.

Attorney Docket Number

IMMP127

## U.S. PATENT DOCUMENTS

Examiner	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
	AA	3,220,121	11/30/1965	Cutler	
	AB	3,517,446	6/30/1970	Coryon et al.	
	AC	3,903,614	9/9/1975	Diamond et al.	
	AD	4,236,325	10/2/1980	Hall et al.	
	AE	4,513,235	4/23/1985	Acklam et al.	
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	AH	4,713,007	12/15/1987	Alban	
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	AT	4,581,491	4/8/1986	Boothroyd	
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	BB	5,334,027	8/2/1994	Wherlock	
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	BH	6,422,941	7/23/2002	Thomer et al.	
	BI	6,111,577	8/28/2000	Zilles et al.	

Examiner  
Signature

/Urszula M. Cegielnik/ (03/11/2010)

Date

Considered

<sup>1</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup> Applicant's unique citation designation number (optional). <sup>3</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>4</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>5</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>7</sup> Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet

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**Complete if Known**

Application Number	09/823,943
Filing Date	March 30, 2001
First Named Inventor	Rosenberg, Louis B.
Art Unit	3712
Examiner Name	Cegielnik, Urszula M.
Attorney Docket Number	IMMP127

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>2</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
	BJ	EP	0349086		1/3/1990	Stork Kwant B.V.	
	BK	JP	01-003664		7/19/1990	Taito Corporation	
	BL	JP	02-109714		1/13/1992	Epoch Co. and Key- Planning Co.	
	BM	JP	05-193862		1/27/1995	Sega Corporation	
	BN	JP	04-007371		8/3/1993	Taito Corporation	

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Application Number	09/823,943
Filing Date	March 30, 2001
First Named Inventor	Rosenberg, Louis B.
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## OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	B0	BAIGRIE, "Electric Control Loading - A Low Cost, High Performance Alternative," Proceedings, pp. 247-254, November 6-8, 1990.
	BP	IWATA, "Pen-based Haptic Virtual Environment," 0-7803-1363-1/93 IEEE, pp. 287-292, 1993.
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	BR	BROOKS et al., "Hand Controllers for Teleoperation - A State-of-the-Art Technology Survey and Evaluation," JPL Publication 85-11; NASA-CR-175890; N85-28559, pp. 1-84, 03/1/1985.
	BS	JONES et al., "A perceptual analysis of stiffness," ISSN 0014-4819 Springer International (Springer-Verlag); Experimental Brain Research, Vol. 79, No. 1, pp. 150-156, 1990.
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	BU	SNOW et al., "Model-X Force-Reflecting-Hand-Controller," NT Control No. MPO-17851; JPL Case No. 5348, pp. 1-4, 06/15/1989.
	BV	OUH-YOUNG, "Force Display in Molecular Docking," Order No. 9034744, p. 1-369, 1990.
	BW	TADROS, "Control System Design for a Three Degree of Freedom Virtual Environment Simulator Using Motor/Brake Pair Actuators," MIT Archive © Massachusetts Institute of Technology, pp. 1-88, February 1990.
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	CA	STANLEY et al., "Computer Simulation of Interacting Dynamic Mechanical Systems Using Distributed Memory Parallel Processors," DSC-Vol. 42, Advances in Robotics, pp. 55-61, ASME 1992.
	CB	RUSSO, "Controlling Dissipative Magnetic Particle Brakes in Force Reflective Devices," DSC-Vol. 42, Advances in Robotics, pp. 63-70, ASME 1992.

Examiner  
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/Urszula M. Cegielnik/ (04/19/2010)

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Sheet 4

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**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

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	CC	KONTARINIS et al., "Display of High-Frequency Tactile Information to Teleoperators," Telemanipulator Technology and Space Telerobotics, Won S. Kim, Editor, Proc. SPIE Vol. 2057, pp. 40-50, Sep. 7-9, 1993.
	CD	PATRICK et al., "Design and Testing of A Non-reactive, Fingertip, Tactile Display for Interaction with Remote Environments," Cooperative Intelligent Robotics in Space, Rui J. deFigueiredo et al., Editor, Proc. SPIE Vol. 1387, pp. 215-222, 1990.
	CE	ADELSTEIN, "A Virtual Environment System For The Study of Human Arm Tremor," Ph.D. Dissertation, Dept. of Mechanical Engineering, MIT, June 1989.
	CF	BEJCZY, "Sensors, Controls, and Man-Machine Interface for Advanced Teleoperation," Science, Vol. 208, No. 4450, pp. 1327-1335, 1980.
	CG	BEJCZY, "Generalization of Bilateral Force-Reflecting Control of Manipulators," Proceedings Of Fourth CISM-IFTOMM, Sep. 8-12, 1981.
	CH	MACAFFEE, "Teleoperator Subsystem/Telebot Demonstrator: Force Reflecting Hand Controller Equipment Manual," JPLD-D-5172, pp. 1-50, A1-A36, B1-B5, C1-C36, January 1988.
	CI	MINSKY, "Computational Haptics: The Sandpaper System for Synthesizing Texture for a Force-Feedback Display," Ph.D. Dissertation, MIT, June 1995.
	CJ	JACOBSEN et al., "High Performance, Dextrous Telerobotic Manipulator With Force Reflection," Intervention/ROV '91 Conference & Exposition, Hollywood, Florida, May 21-23, 1991.
	CK	SHIMOGA, "Finger Force and Touch Feedback Issues in Dexterous Telemanipulation," Proceedings of Fourth Annual Conference on Intelligent Robotic Systems for Space Exploration, Rensselaer Polytechnic Institute, Sep. 30 - Oct. 1, 1992.
	CL	IBM Technical Disclosure Bulletin, "Mouse Ball-Actuating Device With Force and Tactile Feedback," Vol. 32, No. 9B, February 1990.
	CM	TERRY et al., "Tactile Feedback In A Computer Mouse," Proceedings of Fourteenth Annual Northeast Bioengineering Conference, University of New Hampshire, March 10-11, 1988.
	CN	HOWE, "A Force-Reflecting Teleoperated Hand System for the Study of Tactile Sensing in Precision Manipulation," Proceedings of the 1992 IEEE International Conference on Robotics and Automation, Nice, France, May 1992.
	CO	EBERHARDT et al., "OMAR - A Haptic display for speech perception by deaf and deaf-blind individuals," IEEE Virtual Reality Annual International Symposium, Seattle, WA, Sep. 18-22, 1993.
	CP	RABINOWITZ et al., "Multidimensional tactile displays: Identification of vibratory intensity, frequency, and contactor area," Journal of The Acoustical Society of America, Vol. 82, No. 4, October 1987.

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Sheet 5 of 5

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Art Unit	3712
Examiner Name	Cegielnik, Urszula M.
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	CQ	BEJCZY et al., "Kinesthetic Coupling Between Operator and Remote Manipulator," International Computer Technology Conference, The American Society of Mechanical Engineers, San Francisco, CA, August 12-15, 1980.
	CR	BEJCZY et al., "A Laboratory Breadboard System For Dual-Arm Teleoperation," SOAR '89 Workshop, JSC, Houston, TX, July 25-27, 1989.
	CS	OUH-YOUNG, "A Low-Cost Force Feedback Joystick and Its Use in PC Video Games," IEEE Transactions on Consumer Electronics, Vol. 41, No. 3, August 1995.
	CT	MARCUS, "Touch Feedback in Surgery," Proceedings of Virtual Reality and Medicine The Cutting Edge, Sep. 8-11, 1994.
	CU	BEJCZY, et al., "Universal Computer Control System (UCCS) For Space Telerobots," CH2413-3/87/000/0318501.00 1987 IEEE, 1987.
	CV	AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
	CW	EBERHARDT et al., "Including Dynamic Haptic Perception by The Hand: System Description and Some Results," DSC-Vol. 55-1, Dynamic Systems and Control: Volume 1, ASME 1994.
	CX	GOBEL et al., "Tactile Feedback Applied to Computer Mice," International Journal of Human-Computer Interaction, Vol. 7, No. 1, pp. 1-24, 1995.
	CY	PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 <sup>nd</sup> Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
	CZ	"Cyberman Technical Specification," Logitech Cyberman SWIFT Supplement, 4/5/1994.
	DA	OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95, Seoul, Korea, 21-24 August 1995.
	DB	KACZMAREK et al., "Tactile Displays," Virtual Environment Technologies.
	DC	SCANNELL, "Taking a Joystick Ride," Computer Currents, Boston Edition, Vol. 9, No. 11, November 1994

Examiner Signature	/Urszula M. Cegielnik/ (04/19/2010)	Date Considered
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